Serial No. 09/677,134

Response to Office Action Mailed December 16, 2005

Filing Date: September 29, 2000

#### REMARKS

Claims 1-2, 10, 14-18, 23, 25, 27-33, 35-48 remain pending in the present application. Claims 1, 10, 14, 18, 23, 25, 28-30, 32-33, and 35-37 have been amended to further clarify the claimed invention and/or to maintain antecedent basis. Claims 3-9, 11-13, 19-22, 24, 26, and 34 were canceled, and Claims 42-48 were added to claim additional subject matter included in the specification and claims. Applicant respectfully requests reconsideration of the pending claims in view of the claim amendments and the following remarks.

# Information Disclosure Statement Filed July 12, 2001

Applicant respectfully requests an initialed copy of the information disclosure statement filed on July 12, 2001, and according to PAIR, received by the U.S. Patent Office on July 16, 2001. A copy of the as-filed information disclosure statement is enclosed for the convenience of the Examiner.

# The 35 U.S.C. §103(a) Claim Rejections

Claims 1, 2, 6-10, 14, 15, 18, and 23 stand rejected pursuant to 35 U.S.C. §103(a) as being obvious in view of the combination of "Intergalactic Client/Server Computing," Byte, April 1995, by Robert Orfali et al. (hereinafter referred to as "Orfali") and "Report of the STEP '97 Workshop on Net-Centric Computing," Software Engineering Institute, October 1997 by Scott R. Tilley et al. (hereinafter referred to as "Tilley"). In addition, Claims 28, and 37-41 stand rejected pursuant to 35 U.S.C. §103(a) as being obvious in view of the combination of U.S. Patent No. 5,999,931 to Breitbart et al. (hereinafter referred to as "Breitbart") and Tilley. Also, Claims 3-5, 11-13, 19-21, and 24-27 stand rejected pursuant to 35 U.S.C. §103(a) as being obvious in view of Orfali, Tilley, and further in view of U.S. Patent No. 5,956,400 to Chaum et al. (hereinafter referred to as "Chaum"). Further, Claims 16-17 stand rejected pursuant to 35 U.S.C. §103(a) as being obvious in view of the combination of Orfali, Tilley, Chaum and further in view of U.S. Patent No. 6,122,630 to Strickler et al. (hereinafter referred to as "Strickler"). In addition, Claims 29-36 stand rejected pursuant to 35 U.S.C. §103(a) as being obvious in view of Breitbart, Tilley, and further in view of Strickler. Applicant respectfully traverses these rejections because each and every limitation provided in Claims 1-2, 10, 14-18, 23, 25, 27-33, 35-41 as amended are not taught, suggested or disclosed by the cited prior art either alone or in Serial No. 09/677,134 Filing Date: September 29, 2000 Response to Office Action Mailed December 16, 2005

combination. Thus, a prima facie case of obviousness cannot be maintained.

## Claims 1-2

Claim 1 has been amended to describe a distributed data storage system that includes a central data store in communication with at least one of the database servers, wherein data representative of the predetermined portion of the data included in each of data stores also resides on the central data store, wherein each of the predetermined portions of the data is a replicated portion of the data that resides on the central data store that has been segmented horizontally with a segmentation key, and also segmented vertically to form the predetermined portion of the data included in each of the data stores. Claim 1 also describes that the segmentation key is operable to uniquely identify records in the central data store.

Neither Orfali nor Tilley teach, suggest, or describe the limitations described in amended Claim 1. Thus, since all the limitations of the claims are not taught or suggested by the combination of the cited prior art, Applicant respectfully requests withdrawal of the 35 U.S.C. §103(a) rejection of Claim 1 and Claim 2 depending therefrom.

#### Claim 10

Claim 10 has been amended to describe a database located within each of a plurality of data stores, wherein the database of each of the data stores are representative of a segment of data in the netcentric computing system, and wherein the data is horizontally segmented with a segmentation key and also vertically segmented to form the segment of data included in each of the databases, wherein the segmentation key is operable to uniquely define records across the database in each of the data stores. Neither Orfali nor Tilley teach, suggest, or describe the amended features described in amended Claim 10, and Applicant respectfully requests withdrawal of the 35 U.S.C. §103(a) rejection of Claim 10.

### Claims 14-17

Amended Claim 14 describes a local data store in communication with a local database server, wherein the local data store is populated with replica data of the data within the central data store, and wherein the central database server is operable to limit the replica data to a predetermined amount of data by horizontal segmentation of the data within the central data store based on a defining key uniquely definitive of records in the central data store and the local data

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store, and also by vertical segmentation of the data within the central data store. Claim 14 also describes that the central database server is further operable to store transaction related data updates in the central data store and publish the data updates to the local database server to update the replica data in the local data store in response to a pre-determined threshold level of data updates being reached.

Neither Orfali nor Tilley teach, suggest, or describe the limitations described in amended Claim 14 or the claims depending therefrom. Accordingly, Applicant respectfully requests withdrawal of the 35 U.S.C. §103(a) rejection of Claim 14 and the Claims dependent there from.

### Claim 18

The amended method of Claim 18 describes the step of segmenting the data horizontally with a segmentation key that identifies records within the data, and also vertically segmenting the data to obtain the identified predetermined portions. Claim 18 also describes the steps of replicating only the identified predetermined portions, and distributing the replicated predetermined portions of the data to a plurality of data stores. Neither Orfali nor Tilley teach, suggest, or describe the steps described in amended Claim 18. Thus, Applicant respectfully requests withdrawal of the 35 U.S.C. §103(a) rejection of Claim 18.

#### Claims 23-27

The method of Claim 23 has been amended to describe the step of determining a plurality of segmentation parameters that comprise a plurality segmentation keys that are each uniquely definitive of records included in the data. Claim 23 also includes the steps of performing vertical and horizontal segmentation of the data based on the segmentation parameters, wherein the horizontal segmentation is operable to identify records included in the data based on one of the segmentation keys, and storing the segmented data in a plurality of data stores. Neither Orfali nor Tilley teach, suggest, or describe the limitations described in amended Claim 14 or the claims depending therefrom. Accordingly, Applicant respectfully requests withdrawal of the 35 U.S.C. §103(a) rejection of Claim 23 and the Claims dependent there from.

### Claims 28-41

Amended Claim 28 describes the steps of determining a plurality of segmentation keys that uniquely identify records included in the central database, replicating a predetermined

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portion of the data by both horizontally and vertically segmenting the data to create replica data, wherein the horizontal segmentation is performed based on at least one of the segmentation keys. Claim 28 also describes the steps of transferring the replica data to a corresponding first local database and a second local database using a network, updating the data in the central database, storing the updates to the data in the central database until a predetermined threshold of updates is reached, and publishing the updates to the first local database in response to reaching the predetermined threshold. In addition Claim 28 describes the first local database publishing the updates to the second local database.

Neither Breitbart nor Tilley teach, suggest, or describe the limitations described in amended Claim 28 or the claims depending therefrom. Accordingly, Applicant respectfully requests withdrawal of the 35 U.S.C. §103(a) rejection of Claim 28 and the Claims dependent there from.

Applicant believes that all the present pending claims of this application are allowable and respectfully requests the Examiner to issue a Notice of Allowance for this application indicating the same. In the event a telephone conversation would help expedite the prosecution/allowance of this application, the Examiner may reach the undersigned at (317) 636-0886.

Respectfully submitted,

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SNH/

Enclosures - Copy of Information Disclosure Statement filed July 12, 2001.

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